TENNESSEE DEPARTMENT OF AGRICULTURE
Water Resources Program

December 14, 2011

Ms. Erin O'Brien
TDEC
L&C Annex, 6th Floor
Nashville, Tennessee 37243

Dear Ms. O'Brien:

I am writing to inform you that the Tennessee Department of Agriculture (TDA) is submitting a revised approval and CAFO application (maps, Nutrient Management Plan (NMP), and revised written in Notice of Intent (NOI) form) for CAFO permit for Mr. Tom Patterson in Ocoee, Tennessee.

Please let us know if you need anything else to assist you in issuing Mr. Patterson his CAFO permit.

Sincerely,

Angela L. Warden
CAFO Specialist

: //enclosures

Ellington Agricultural Center
440 Hogan Road
Nashville, TN 37220
Telephone: 615-837-5492 Fax: 615-837-5025

TENNESSEE DEPARTMENT OF AGRICULTURE Revised

Water Resources Program

The following individual has submitted all required elements of an NMP/CNMP as required to obtain a CAFO permit. Their Nutrient Management Plan (or CNMP) has been reviewed and approved by this office.

Name of Owner/Operator: Tom Patterson

Operation Name: Tom Patterson Poultry Farm

Address of Operation: 590 Sloan Gap Rd, Ocoee, TN 37361

Phone Number: (423) 338-5411 County: Polk

Date application was initiated:

RECEIVED
JUL 11 2011

Date approval forwarded to TDEC:

DEC 14 2011

NMP/CNMP Approval Date:

THE APPROVAL SHALL NOT BE CONSTRUED AS CREATING A PRESUMPTION OF CORRECT

DEC 14 2011

OPERATION OR AS WARRANTING THAT THE APPROVED FACILITIES WILL REACH THE DESIGNED GOALS

Date approval received by TDEC

TDA Reviewer's Name: Angela Warden

TDA Reviewer's Signature: Angela Warden 12/14/11
Date

TENNESSEE DEPARTMENT OF AGRICULTURE

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TDA Reviewer's Name: Angela L Warden

TDA Reviewer's Signature: Angela L Warden 8/22/11
Date

Tennessee Department of Environment and Conservation,
Division of Water Pollution Control
401 Church Street, 6th Floor L & C Annex, Nashville, TN 37243
(615) 532-0625

CONCENTRATED ANIMAL FEEDING OPERATION (CAFO)
STATE OPERATING PERMIT (SOP)
NOTICE OF INTENT (NOI)

Type of permit you are requesting: ☐ SOPCD0000 (designed to discharge) ☑ SOPC00000 (no discharge) ☐ Unknown, please advise

Application type: ☐ New Permit ☐ Permit Reissuance ☐ Permit Modification

If this NOI is submitted for Permit Modification or Reissuance provide the existing permit tracking number: ____

OPERATION IDENTIFICATION

Operation Name: Tom Patterson Poultry Farm	County: Polk
Operation Location/ Physical Address: 590 Slow Gap Road Ocoee, TN 37361	Latitude: 35° 06' 8.81"
	Longitude: 84° 42' 55.15"
Name and distance to nearest receiving water(s):	
If any other State or Federal Water/Wastewater Permits have been obtained for this site, list those permit numbers:	
Animal Type: ☑ Poultry ☐ Swine ☐ Dairy ☐ Beef ☐ Other ____	
Number of Animals: 120,000 Number of Barns: 2 4 12/13/11 Name of Integrator: Pilgrim's Pride	
Type of Animal Waste Management: (check all that apply) ☑ Dry ☐ Liquid ☐ Liquid, Closed System (i.e. covered tank, under barn pit, etc.)	
Attach the NMP ☐ NMP Attached Attach the closure plan ☐ Closure Plan Attached Attach a topographic map ☐ Map Attached	

Pending will send in at a later date

PERMITTEE IDENTIFICATION

Official Contact (applicant): Tom Patterson	Title or Position: Landowner			☑ Correspondence ☑ Invoice
Mailing Address: 334 Longley Road	City: Ocoee	State: TN	Zip: 37361	
Phone number(s): 423-338-5911	E-mail:			
Optional Contact:	Title or Position:			☐ Correspondence ☐ Invoice
Address:	City:	State:	Zip:	
Phone number(s):	E-mail:			

APPLICATION CERTIFICATION AND SIGNATURE (must be signed in accordance with the requirements of Rule 1200-4-5-.05)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and title; print or type	Signature	Date
Thomas Patterson	Thomas Patterson	7-5-11

STATE USE ONLY

Received Date	Reviewer	EFO	T & E Aquatic Fauna	Tracking No.
	Impaired Receiving Stream	High Quality Water		NOC Date

RECEIVED
JUL 11 2011

Tom Patterson Ocoee, TN

Nutrient Management Plan Requirements

Polk Co. TN

Tom Patterson Poultry Farm

The following 9 items need to be submitted at the time the permit is applied for. Additional record-keeping items as outlined in the CAFO rules are also considered part of the nutrient management plan and must be kept on-site. More information on each item can be found in the CAFO rule (1200-4-5-.14).

1. **Two maps: (1.)** A map of your farm showing location of any animal barns/houses, compost bins, litter storage bins, manure lagoons/holding ponds, nearby roads, fields to which litter/manure will be applied, and non-application buffer areas around any bodies of water (streams, creeks, rivers, ponds, wells, sinkholes, springs, wetlands, etc.). A hand-drawn map is acceptable and even preferred. **(2.)** A topographic map of the farm (1:24000 scale, showing 1-mile radius from farm) showing property lines.

2. **Nutrient budget** – this is basically a balance sheet of all manure produced on the farm and all manure spread on the farm or removed from the farm. Application rates for all fields should be based on crop needs, realistic crop yield expectations, and actual manure analyses of nutrient content.

3. **Soil test results** for phosphorus and potassium for each application field. These must be taken at a minimum of every five years.

4. Results of **manure analysis** from within the past year. Annual manure testing is a requirement for all CAFOs. These results must be included with initial permit application if the farm is in operation. If the farm that is applying for the permit is new and not yet operating, then manure testing results need to be obtained once operation begins. At that point, the manure test results and revised application rates need to be submitted to TDA. Manure test results in subsequent years need to be kept as part of your record-keeping activities.

5. Results of the **Phosphorus Index** applied to each field that has a soil test P value of "High" or "Very High". In those situations, this tool will determine whether your application rates will be based on nitrogen or phosphorus.

6. Statement regarding method of **dead animal disposal**.

7. **Closure Plan** to be implemented in the event animal production ceases on the site.

These last two items are only required for medium-size CAFOs that manage **liquid manure**.

8. Documentation of **design of liquid waste handling system**. This should include, but is not limited to: volume for solids accumulation, design treatment volume, total design volume, the approximate number of days of storage capacity, pumping and routing of wastes, and any solid separation process. Ideally, this documentation would consist of the pertinent engineering drawings with accompanying descriptive narrative.

9. The construction, modification, repair, or installation of any portion of a CAFO liquid waste handling system (such as earthen holding pond, treatment lagoon, pit, sump or other earthen storage/containment structure) after April 13, 2006 must be preceded by a thorough **subsurface investigation**. This investigation will include a detailed soils investigation with special attention to the water table depth and seepage potential.

In addition to the items above, the following form(s) must accompany your application:

***Notice of Intent* form** must be submitted with all applications from Class II (Medium) CAFOs

OR

EPA Forms 1 and 2B must be submitted with all applications from Class I (Large) CAFOs:

Addendum to Nutrient Management Plan.

Addendum to Nutrient Management Plan:

By my signature below, I affirm that I have read, understand, and will comply with the following stipulations from Tennessee's CAFO rule (1200-4-5-.14) that apply to my CAFO operation.

1) All clean water (including rainfall) is diverted, as appropriate, from the production area.
2) All animals in confinement are prevented from coming in direct contact with waters of the state.
3) All chemicals and other contaminants handled on-site are not disposed of in any manure, litter, process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants.
4) All sampling of soil and manure/litter is conducted according to protocols developed by UT Extension.
5) All records outlined in 1200-4-5-.14(16)d-f will be maintained and available on-site.
6) Any confinement buildings, waste/wastewater handling or treatment systems, lagoons, holding ponds, and any other agricultural waste containment/treatment structures constructed after April 13, 2006 are or will be located in accordance with NRCS Conservation Practice Standard 313.
7) Drystacks of manure or stockpiles of litter are always kept covered under roof or tarps.
8) An *Annual Report* will be written for my operation and submitted between January 1 and February 15 of each year. It will include all information required by rule [1200-4-5-.14(16)g].

Thomas Patterson
Signature of CAFO Operator:

8-18-11
Date:

Nu' :nt Management Plan - Pou /

For Use by Farms

Exporting 100% of Litter Generated

1. Farmer/ Producer Information

Is ALL Litter Hauled Offsite*	Yes	No
If the answer is "No," do not complete this form.	*Please circle one*	

First Name:	Thomas
Last Name:	Patterson
Farm/ Operation Name:	Thomas Patterson Farm
Tennessee County:	Bradley

2. Volumes and Calculations

Poultry Type: Broiler | Pullet | Layer *(circle the type(s))*

Key		
A	Number of birds per house per grow-out:	30,000
B	Number of Houses:	4
C	Number of Grow-Outs / Year:	6
D	Average Weight of Litter Produced (lbs.)/ Bird / Grow-Out *(see Table at right or use your farm average if known)*	2.1

The amount of litter removed from a poultry house will vary depending on the litter moisture content, type and size of birds, and length of time birds are kept in house. Below is a Table summarized from the NRCS Poultry System Calculator V10.0 to assist in placing the litter amount produced per bird and assist in litter calculations.

Type of Bird	Market/ Mature Weight (lbs)	Avg. Weight of Litter Produced (lbs)/ Bird / Grow-Out
Broilers	small (3.8 - 5 .8)	2.1
	large (5.9 - 7+)	2.4
Layer	8 - 12	8
Pullet	5.5	3

*Take **Bolded** Letters in **Key** Column Above and Below to Assist in Calculating Values Below*

Number of Birds per Grow-Out = A x B = 120000

Number of Birds Example: If A = 22,000 and B= 2 and C= 5.5 then:

22,000 X 2 = 44,000 number of birds

KEY

E **Number of Birds per Year** = A x B x C = 720000

Number of Birds per Year Example: If A = 22,000 and B= 2 and C = 5.5 then:

22,000 x 2 x 5.5 =242,000 number of birds per year

Total Tons of Litter Produced per Year on the Farm = E x D / 2,000 = 756

Tons of Litter Produced Example: If E = 242,000 and D = 2.1 lbs. then:

242,000 x 2.1 lbs = 508,200 lbs. / 2,000 = 254 Tons

Tons of Litter Exported from Farm / Year 756

3. Litter Handling and Storage

Litter Contents from Manure Analysis (*as is basis*)

Laboratory Name	House	Date of Analysis	Total N	P_2O_5[a]	K_2O[b]	Units
UN. Of Arkansas 1,2,3,4		7/27/2011	71.8	66.9	76.2	lbs./Ton
						lbs./Ton
						lbs./Ton

I will get an annual manure analysis and provide the results to all parties which are given or purchase litter from my farm or operation.

Thomas Patterson 8-18-11

Signature / Date Signed

Mortality Management

Dead birds will be disposed of according to State and local laws in a way that does not adversely affect groundwater or create public health concern. All mortalities will be disposed of using:

Composting	Incineration	Other:
please circle one		

initials

Closure Plan

In the event that poultry production at this location ceases, the following will be done within 360 days:

- Any litter/ compost currently in storage at the time of closure will be removed and spread elsewhere according to my current NMP.
- All litter in houses will be removed and spread elsewhere according to my current NMP.
- The most current manure analysis performed by an accredited laboratory will be provided to anyone removing litter on my farm.
- Any dead birds in the houses at the time of closure will be disposed of according to my NMP.

Signature that I have read and agree to this Closure Plan / *Date signed*

Thomas Patterson 8-18-11

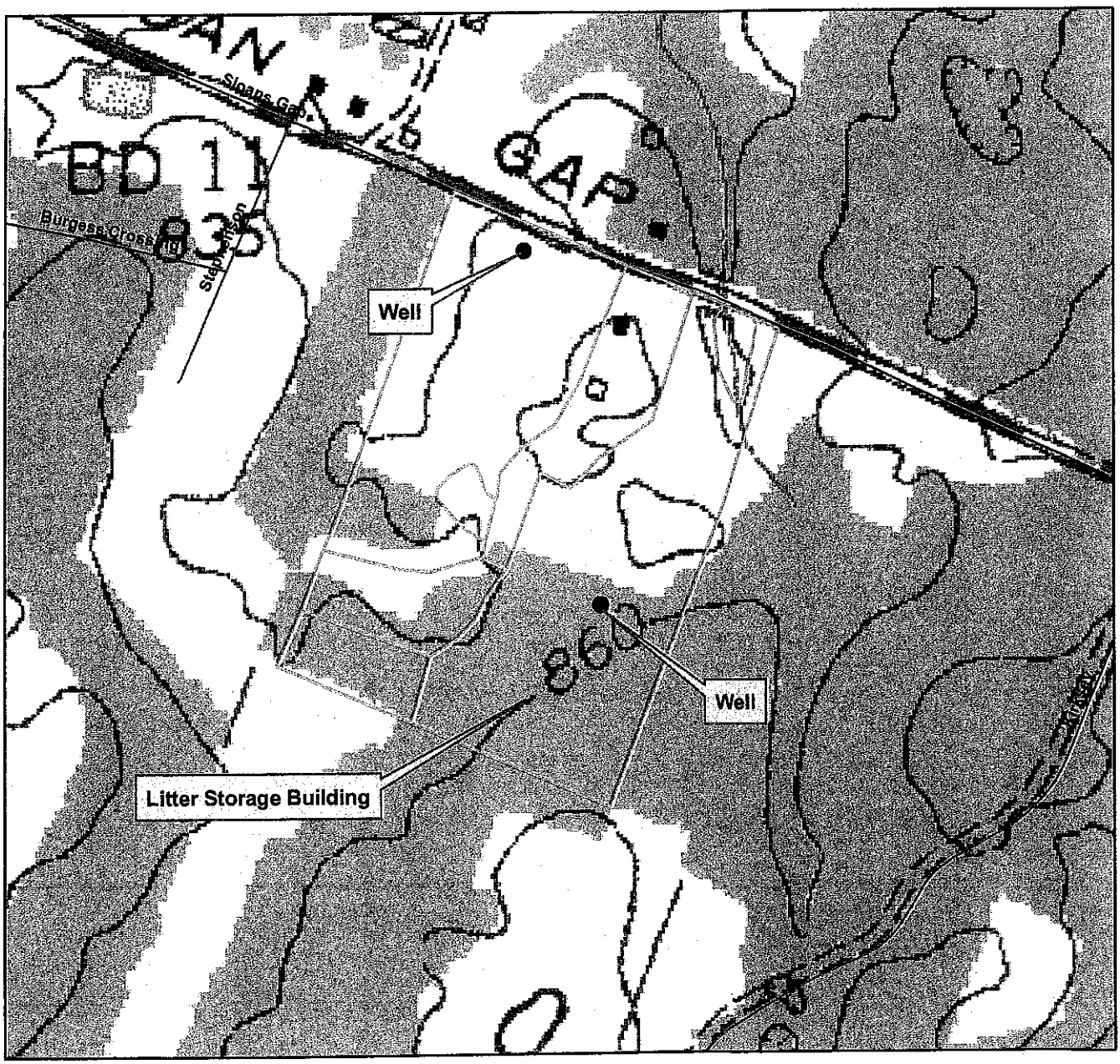
Notes:

N = Nitrogen P_2O_5 = Phosphorus Oxide K_2O = Potassium Oxide

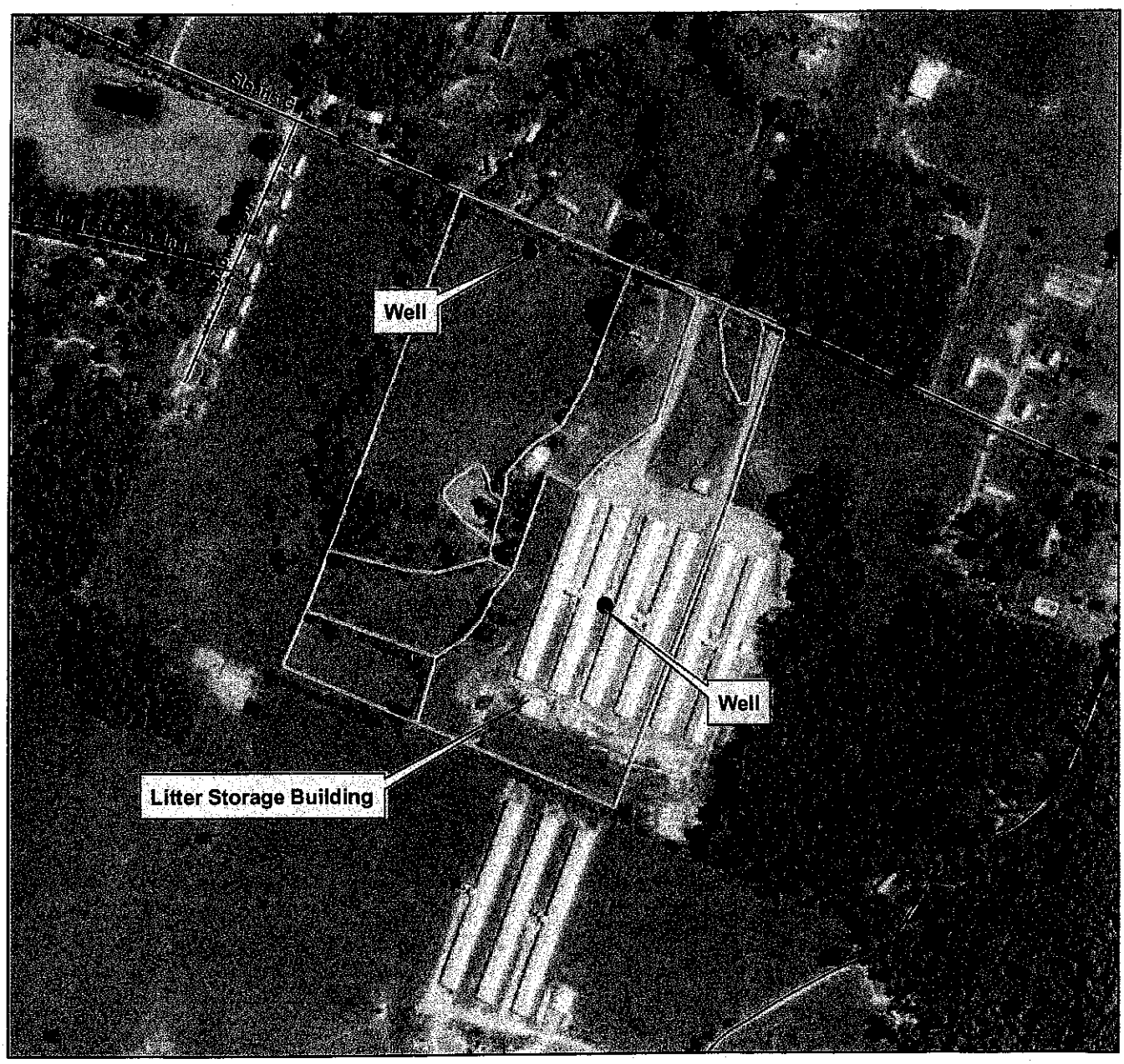
[a] If Phosphorus is expressed in analyses as Phosphorus (P), simply multiple P lbs. X 2.3 to convert to P_2O_5.

[b] If Potassium is expressed in analyses as Potassium (K), simply multiple K lbs. X 1.2 to convert to K_2O.

Customer(s): THOMAS A PATTERSON



Customer(s): THOMAS A PATTERSON



Legend

Consplan

Roads

260 0 260 520 780 1,040 Feet

AG..JULTURAL DIAGNOSTIC LABORATORY
UNIVERSITY OF ARKANSAS - FAYETTEVILLE
***MANURE FOR FERTILIZER ANALYSIS (report for AGRI-429)

Name:	TOM PATTERSON	Received In lab:	7/20/2011
Address:	334 LONGLEY RD.	Mailed:	7/27/2011
City:	OCOEE	State,Zip:	TN 37361
County:	POLK (TN)	CK#:	1696 partial payment

Lab. No.	M11038
Sample No.	NONE GIVEN
Animal type	broilers
-age/lbs	none given
Bedding type	shavings/sawdust
Manure type	cake
Sample date	7/18/2011
Age of manure	6 wks
pH	8.2
EC(umhos/cm)	14380
% H20	20.17

-on dry basis-

Total %N	4.50
Total %P	1.83
Total %K	3.95
Total %Ca	2.18
Total %Carbon	36.88
NO3-N, mg/kg	26.4
NH4-N, mg/kg	4347

-on as-is basis-

Total %N	3.59
Total %P	1.46
Total %K	3.15
Total %Ca	1.74
Total %Carbon	29.44
NO3-N, mg/kg	21.1
NH4-N, mg/kg	3470

-lbs/ton on as-is basis-

N	71.8
P2O5	66.9
K2O	76.2
Ca	34.8
Total Carbon	588.8
NO3-N	0.04
NH4-N	6.9

***all analyses performed on "as-is" basis/ "dry" basis is calculated from moisture content
*lbs/ton P2O5 = %Total P on "as-is" basis multiplied by 20*2.29
*lbs/ton K2O = %Total K on "as-is" basis multiplied by 20*1.2